

Connective tissue diseases

EliA[™] DFS70 test – addressing the challenges in ANA HEp-2 positive results



The dense fine speckled (DFS) pattern is common in routine testing

- Found in up to 37% of samples routinely tested for anti-nuclear antibodies (ANA) by immunofluorescence assay (IFA)¹
- A common pattern in apparently healthy individuals and patients unlikely to suffer from systemic autoimmune rheumatic diseases (SARD)^{1, 2}
- Included as "AC-2 dense fine speckled" in the International Consensus on Antinuclear Antibody Patterns (ICAP)³



Confirmatory testing is recommended to differentiate anti-DFS70 antibodies from other ANA

- Identification and differentiation of the AC-2 pattern from disease associated ANA patterns (e.g. AC-1 homogeneous, AC-4 – fine speckled, AC-5 – speckled) can be difficult^{1,3}
- Inaccurate reporting of the AC-2 pattern can lead to unnecessary additional testing and negatively impact patient management¹
- DFS pattern results from autoantibodies against the DFS70 protein, also known as lens epithelium-derived growth factor (LEDGF) or p75^{1,3}
- Testing for anti-DFS70 antibodies is recommended in routine ANA testing algorithm ¹⁻³



Isolated anti-DFS70 antibodies may be an exclusionary marker for connective tissue diseases (CTD)

- Up to 22% of healthy individuals but <1% of patients with ANA associated rheumatic diseases (AARD) show single positivity for anti-DFS70 antibodies²
- Single positivity for anti-DFS70 antibodies has a negative association with AARD²

Testing for anti-DFS70 antibodies can aid in clinical decision making



Thermo Fisher



EliA DFS70 test - key features

Antigen:	Recombinant full-length human DFS70 expressed in the baculovirus/insect cell system					
Controls:	EliA [™] DFS70 Positive Control and EliA [™] IgG/IgM/IgA Negative Control					
Automation:	Available on Phadia [™] 200 and Phadia [™] 250 instruments as well as on Phadia [™] 2500+ and Phadia [™] 5000+ series					
Flexibility:	Random access* testing and possibility of reflex testing					
Efficiency:	Easy add-on to EliA [™] test portfolio by using the EliA [™] IgG calibration method and ready-to-use reagents to adjust to varying testing needs					
Cost savings:	Interchangeable reagents with other EliA tests, e.g. EliA [™] CTD Screen and EliA [™] dsDNA test					
Cinical performance:	In an analysis of 55 samples with the typical DFS70 pattern in IFA on HEp-2 cells and 156 samples as systemic autoimmune rheumatic disease controls, all sera with DFS70 pattern were found positive and all 156 disease controls were correct negative. ⁴					

*random access testing available on Phadia 250 instrument, Phadia 2500+ and Phadia 5000+ series



Phadia[™]200 instrument



Phadia[™]250 instrument



Phadia[™] 2500+ series Phadia 2500+ comprises Phadia[™] 2500, Phadia[™] 2500E and Phadia[™] 2500EE



Phadia[™] 5000+ series Phadia 5000+ comprises Phadia[™] 5000, Phadia[™] 5000E and Phadia[™] 5000E+E

Technical data

Technical data	Cut-off					
Ordering information	Article No.	Package size	negative	equivocal	positive	Short name
EliA DFS70 Well	14-5673-01	2 x 16 wells	< 7 EliA U/mL	7–10 EliA U/mL	> 10 EliA U/mL	dfs

References

- 1. Malyavantham K, Suresh L. Analysis of DFS70 pattern and impact on ANA screening using a novel HEp-2 ELITE/DFS70 knockout substrate. Auto Immun Highlights. 2017;8(1):3.
- 2. Conrad K, Rober N, Andrade LE, Mahler M. The Clinical Relevance of Anti-DFS70 Autoantibodies. Clin Rev Allergy Immunol. 2017;52(2):202-16.
- 3. Chan EKL, Damoiseaux J, Carballo OG, Conrad K, de Melo Cruvinel W, Francescantonio PLC, et al. Report of the First International Consensus on Standardized Nomenclature of Antinuclear Antibody HEp-2 Cell Patterns 2014–2015. Frontiers in Immunology. 2015;6(412).
- 4. Thermo Fisher Scientific. Internal Study.

Learn more at thermofisher.com/elia

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